

ABSTRACT

Cylindrical devices (frits) are prepared by embedding aminoalkyl- or mercaptoalkyl-modified Controlled Pore Glass (CPG) in high-density polyethylene. Methods and devices pertaining to their use in the synthesis of nucleic acids are described. A reusable synthesis column or a reusable 96-chamber synthesis plate have been designed to hold one to 96 of the said frits that are inserted reproducibly into the synthesis chambers with a frit insertor. A short gas surpressure is required to drive entry of chemical reagents into the said frit. Reagents are retained into the frit until a second, longer surpressure is applied to drain the said reagents.